VRVS and The Access Grid Gateway

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Outlines

- VRVS: Background Information
- The basics of an AG Gateway
- VRVS Access Grid Gateway
- How to create an Access Grid Venue in the VRVS system ?
- How to Join an Access Grid Venue via VRVS ?

VRVS: What it is ?

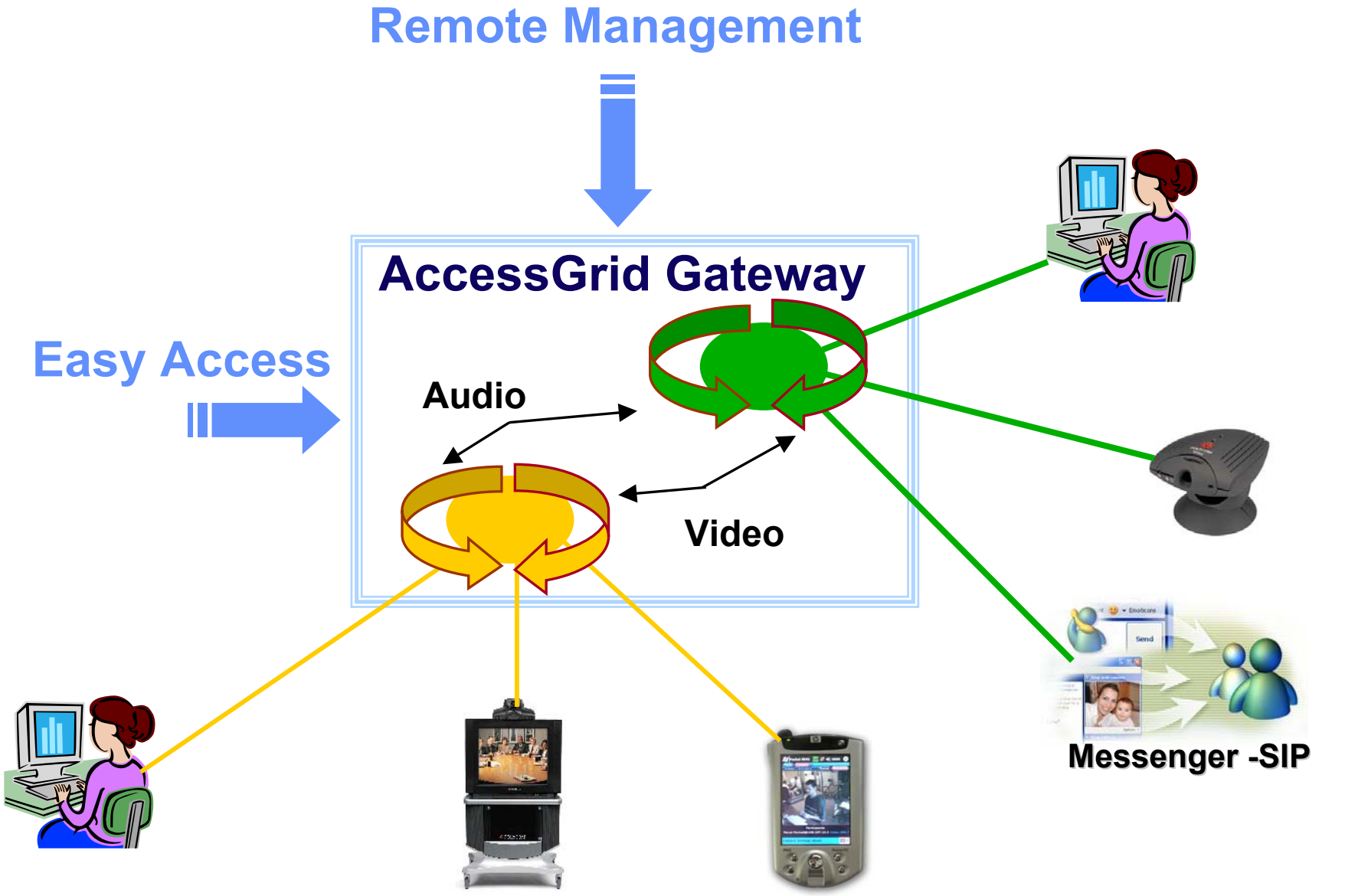
- VRVS is a realtime distributed system which provides a scalable communication infrastructure for large collaboration dispersed all over the world.
- Different technologies and protocols are supported (and mixed) and allow users to connect their preferred videoconference.
- Supports Mbone, H.323, SIP, QuickTime, Access Grid, JMF and MPEG2.
- The system is composed of 1 main server and several reflectors (network servers) spread around the world.

VRVS Web Service Design

- **Unified Web User Interface** to schedule and join/leave a meeting **independently of the application.**
- **Multi-platform: Windows, Linux, MacOS and Unix.**
- **Easy to use**: Everybody knows how to click on a web page today.
- **Virtual Room Concept**, Scheduling; Create a virtual space were people can exchange real-time information.
- **Join or Leave a Collaborative session anytime**. ***Do not need to know in advance how many participants and booked ports capacity. Just announce the meeting and people will join from anywhere.***
- **Full Documentation and Tutorial**
- **Self service: Don't need a technician or expert to organize and join a conference.**

VRVS Reflectors Deployment World Wide

The Basics of an AccessGrid Gateway



The VRVS / AccessGrid Gateway

- **Multicast / Unicast bridge**
  - ✓ We use the VRVS reflectors to map a AG Venue with a VRVS Virtual Room
- **Several Multicast / Unicast Streams**
  - ✓ Several AG Venues map to VRVS Virtual rooms
- **Support for several clients (not only Mbone Application)**
  - ✓ Already built-in in VRVS
- **Friendly User Interface to Join a meeting**
  - ✓ Via the VRVS Web Interface
- **Friendly User/Admin Interface to run an AccessGrid Multicast Gateway**
  - ✓ Via The VRVS Web Admin Interface

The VRVS / AccessGrid Gateway (2/2)

- **Include some "Intelligence" in the packets processing**

Audio:

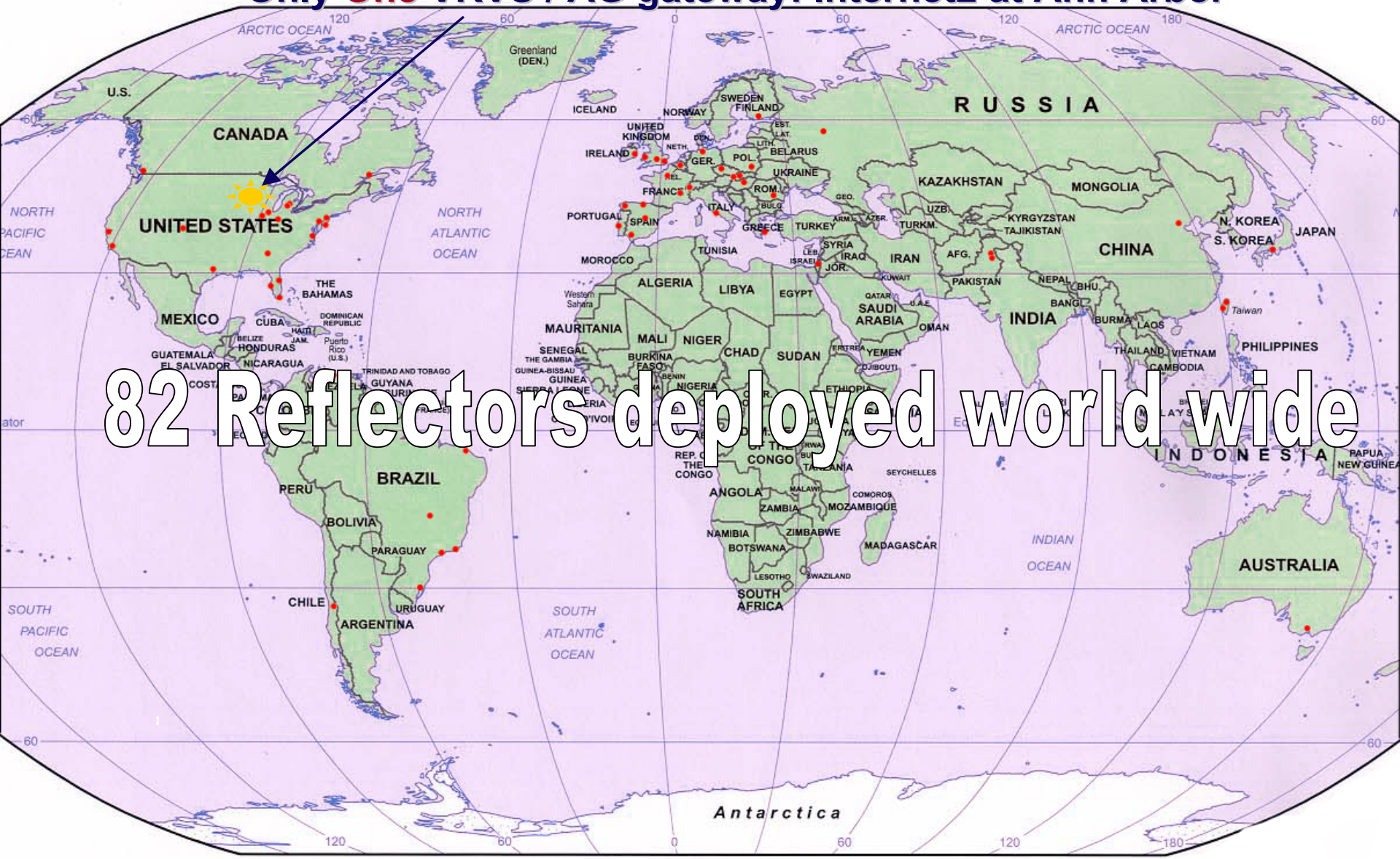
- ✓ All Audio streams are mixed for VC client capable to decode only one audio stream (i.e. H.323)
- ✓ All Audio codecs supported by RAT (including L16-16Khz) are transcode to G.711 when mixed.

Video:

- ✓ User can selected the video streams that he wish to receive. From all video streams, few selected video streams or just 1 stream.
- ✓ User can select the timer-switch mode (automatic round-robin selections of video streams)

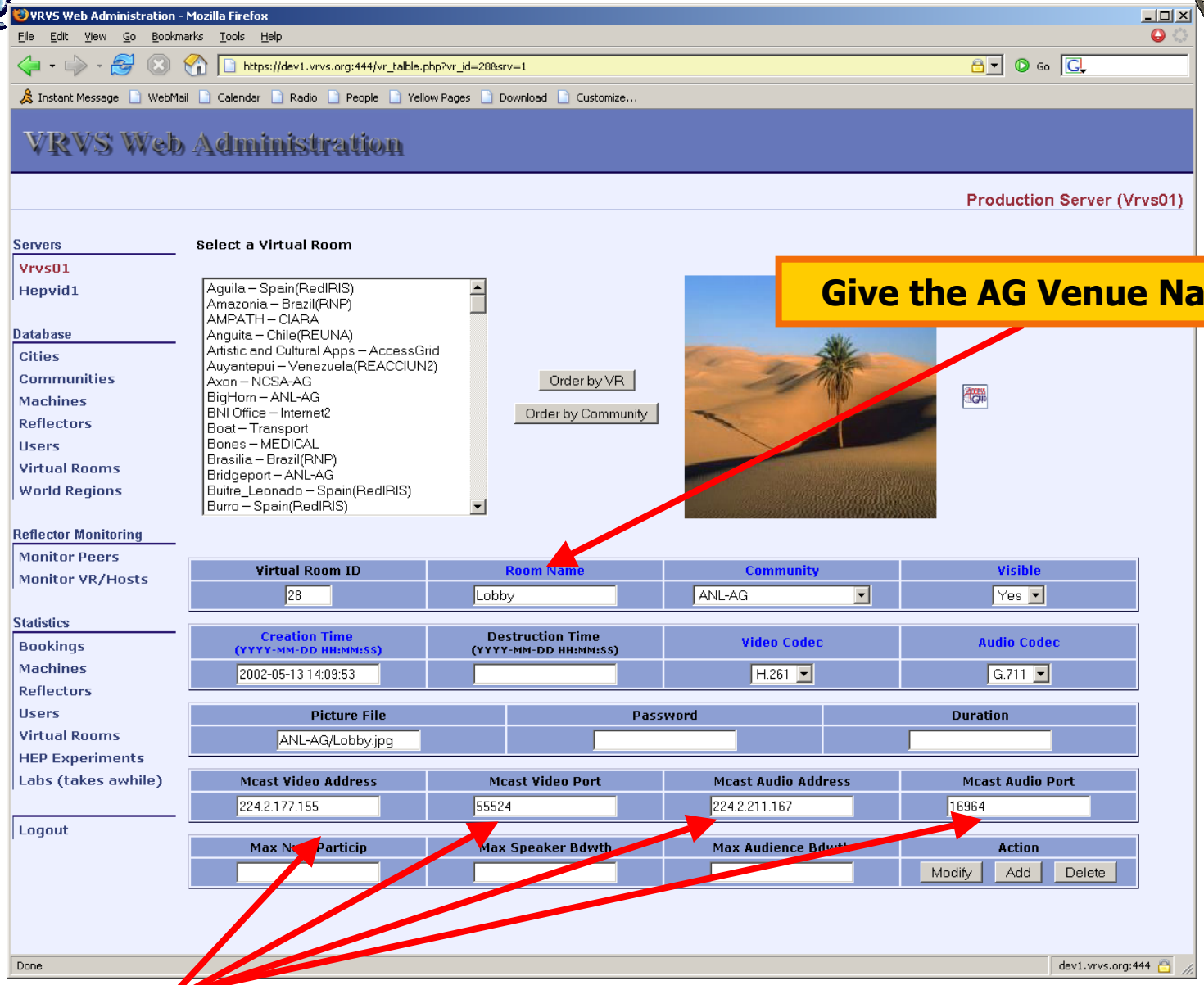
The Current VRVS / AG Gateway

Only One VRVS / AG gateway: Internet2 at Ann Arbor



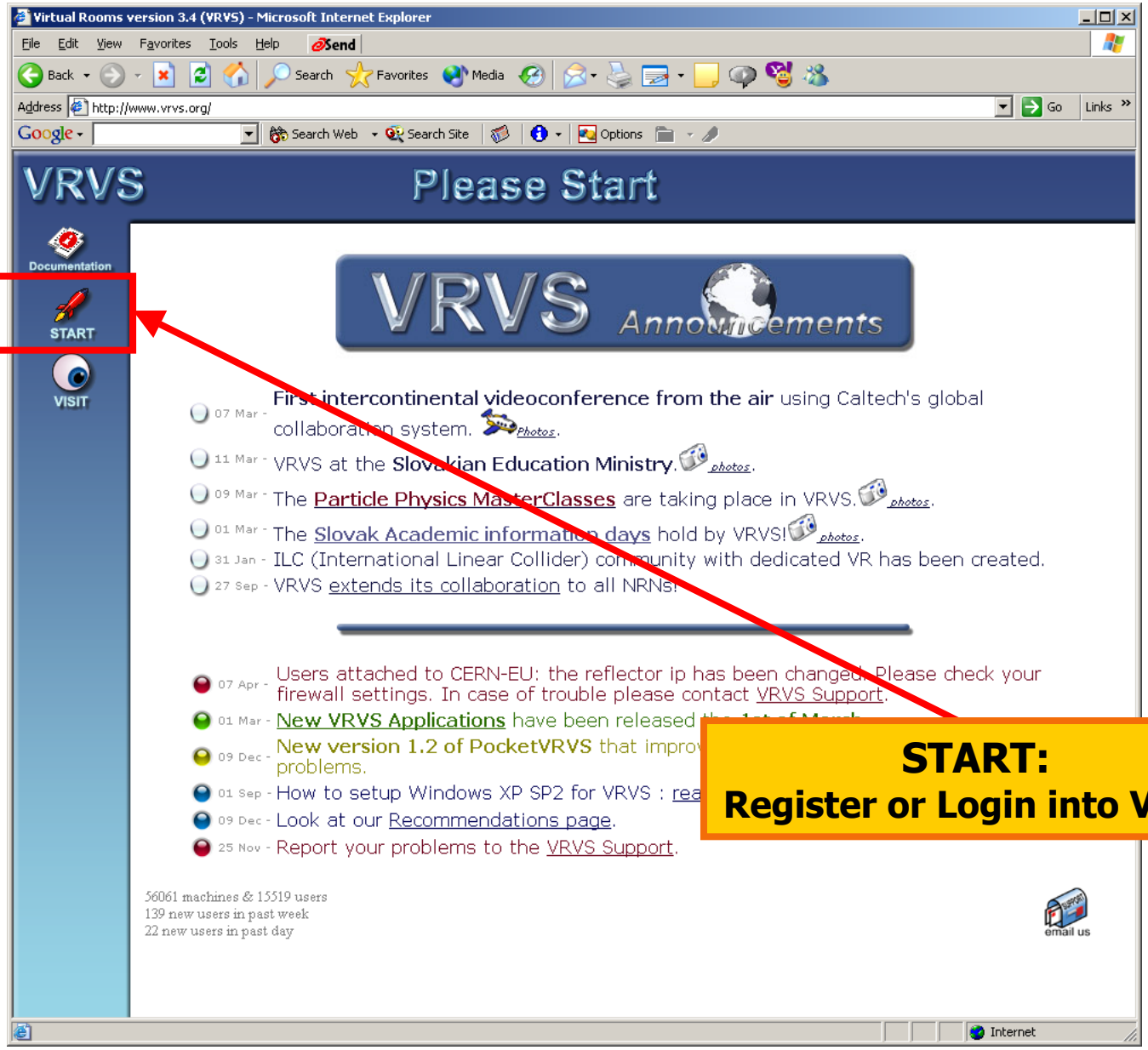
82 Reflectors deployed world wide

Creation of an AG Venue

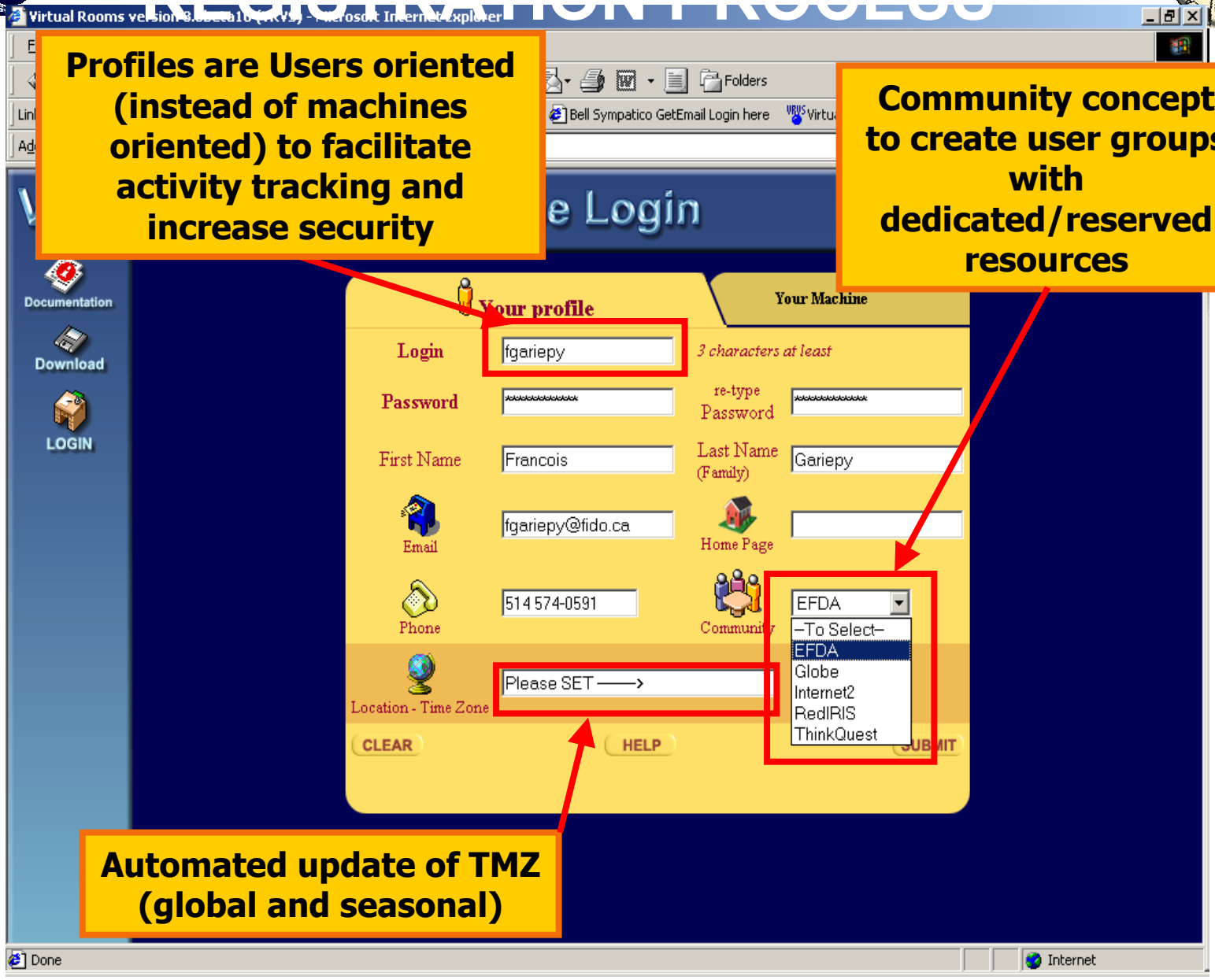


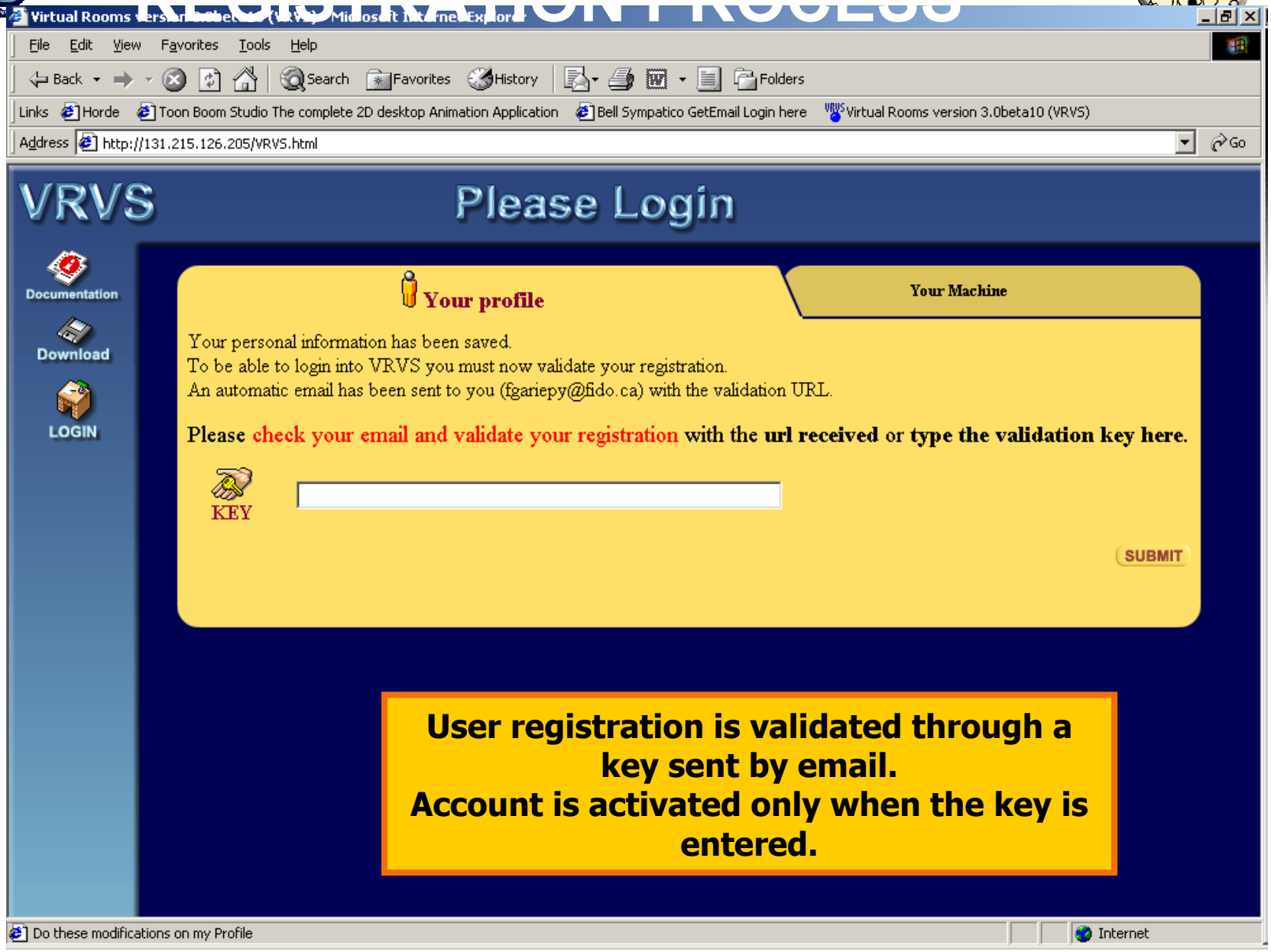
Give the Video/Audio Multicast Addresses and Ports

Joining an AG Venue

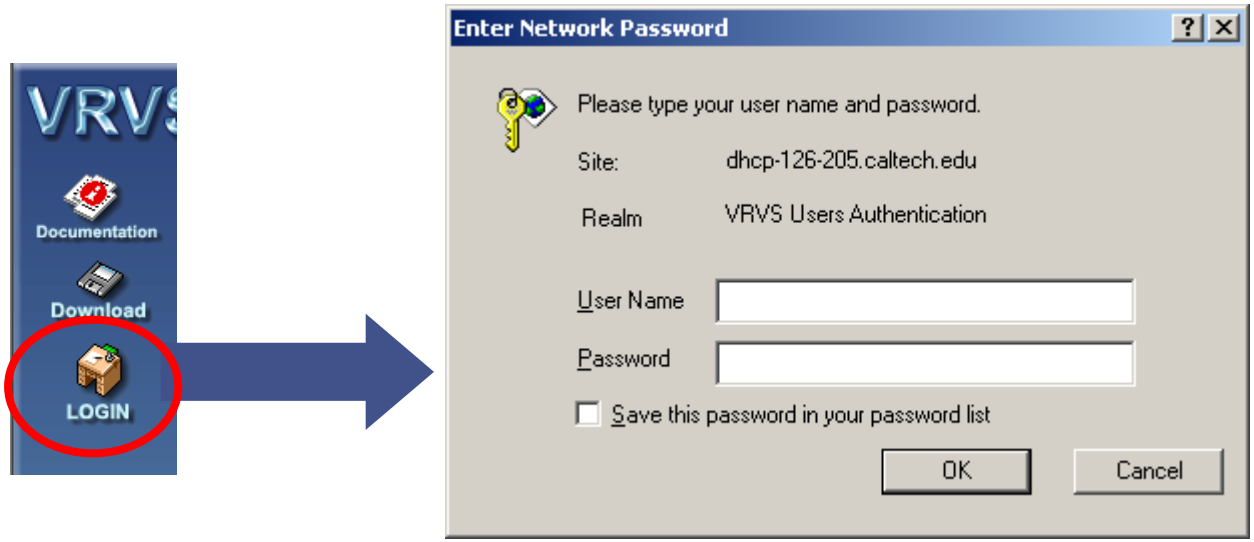


START:
Register or Login into VRVS

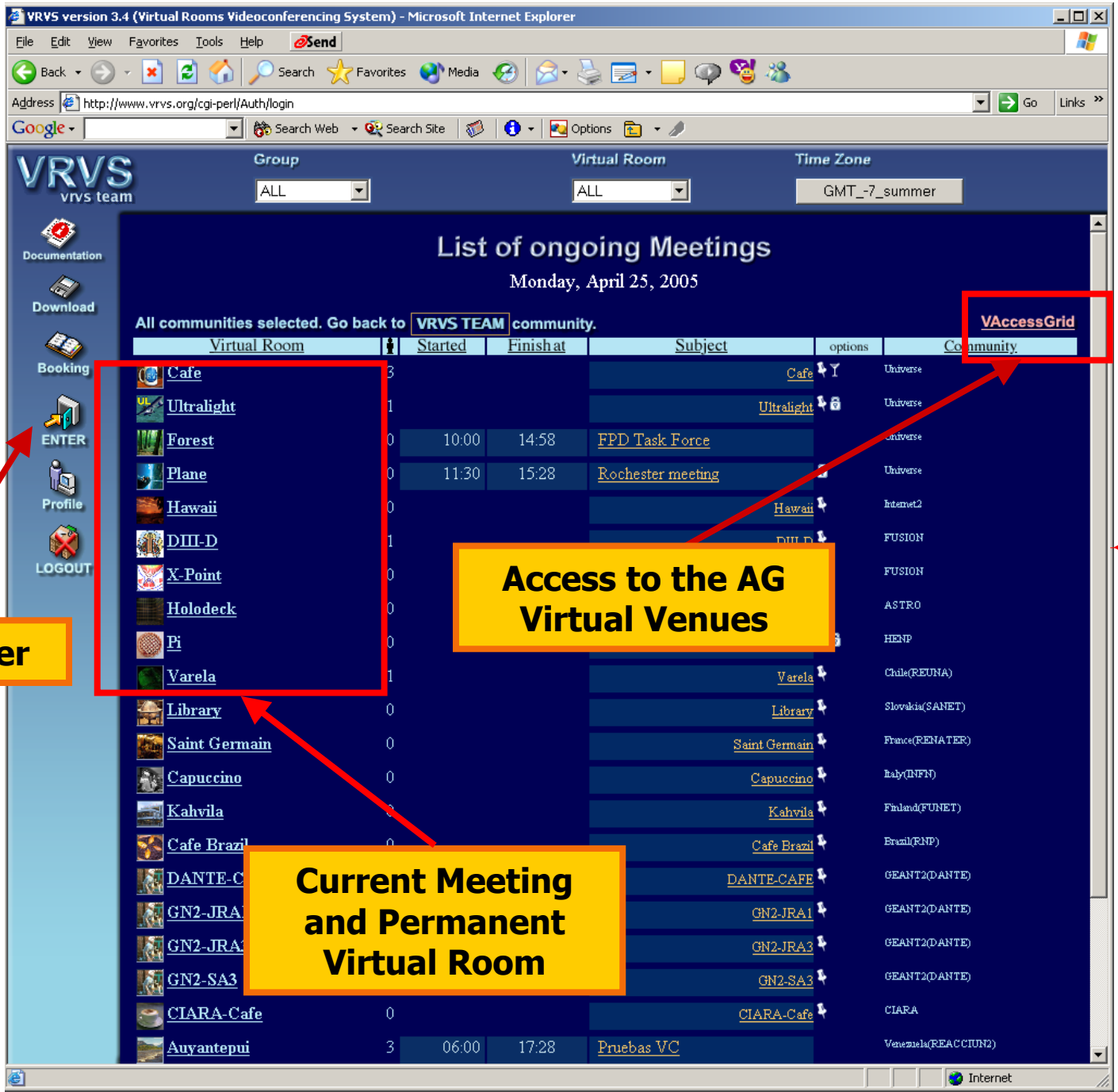

Profiles are Users oriented (instead of machines oriented) to facilitate activity tracking and increase security
Community concept to create user groups with dedicated/reserved resources
Automated update of TMZ (global and seasonal)
Virtual Rooms version
Folders
Bell Sympatico GetEmail Login here
e Login
Documentation
Download
LOGIN
Your profile
Your Machine
Login
fgariepy
3 characters at least
Password
re-type Password
First Name
Francois
Last Name (Family)
Gariepy
Email
fgariepy@fido.ca
Home Page
Phone
514 574-0591
Community
EFDA
–To Select–
EFDA
Globe
Internet2
RedIRIS
ThinkQuest
Location - Time Zone
Please SET ——>
CLEAR
HELP
SUBMIT
Done
Internet

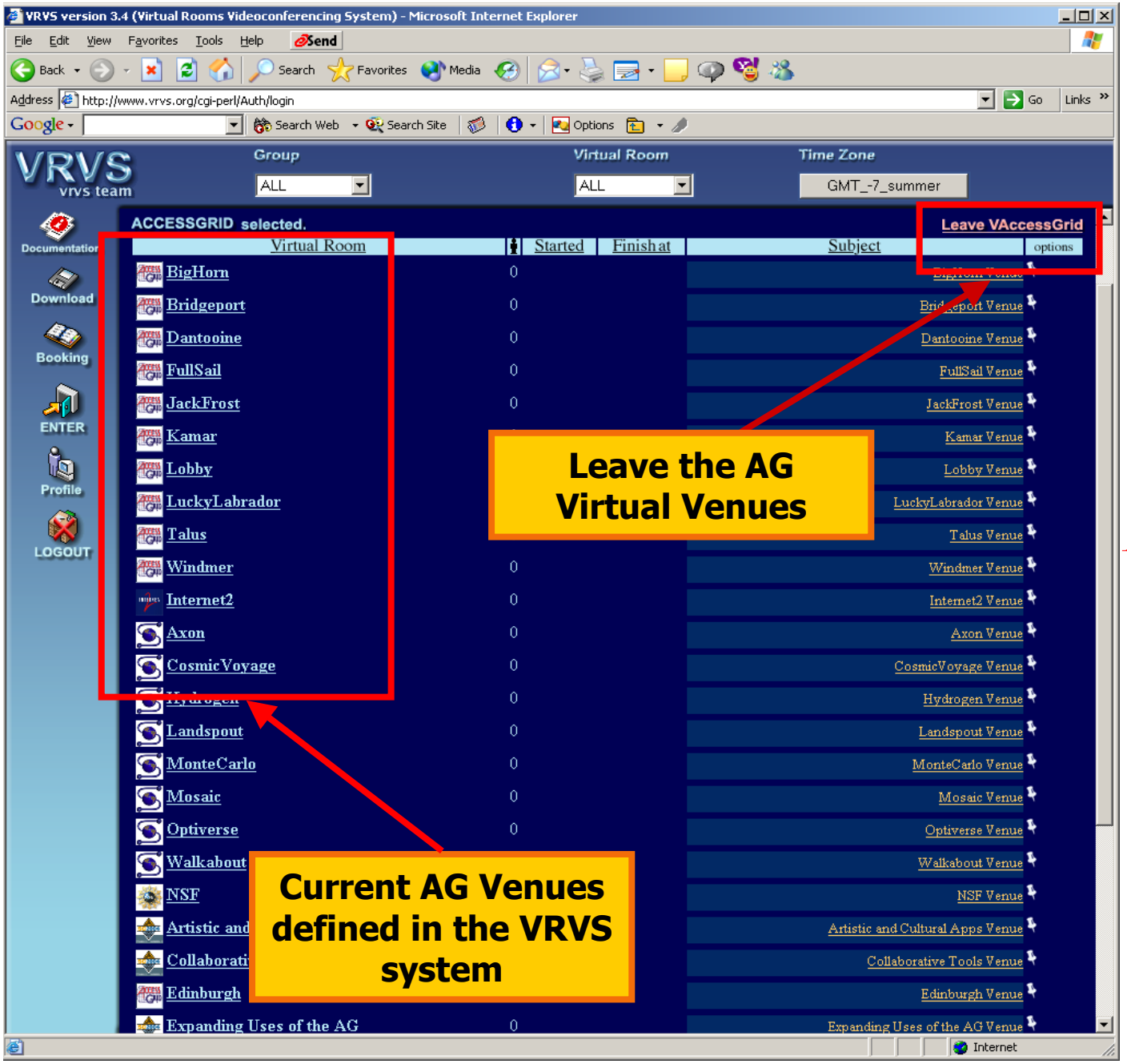


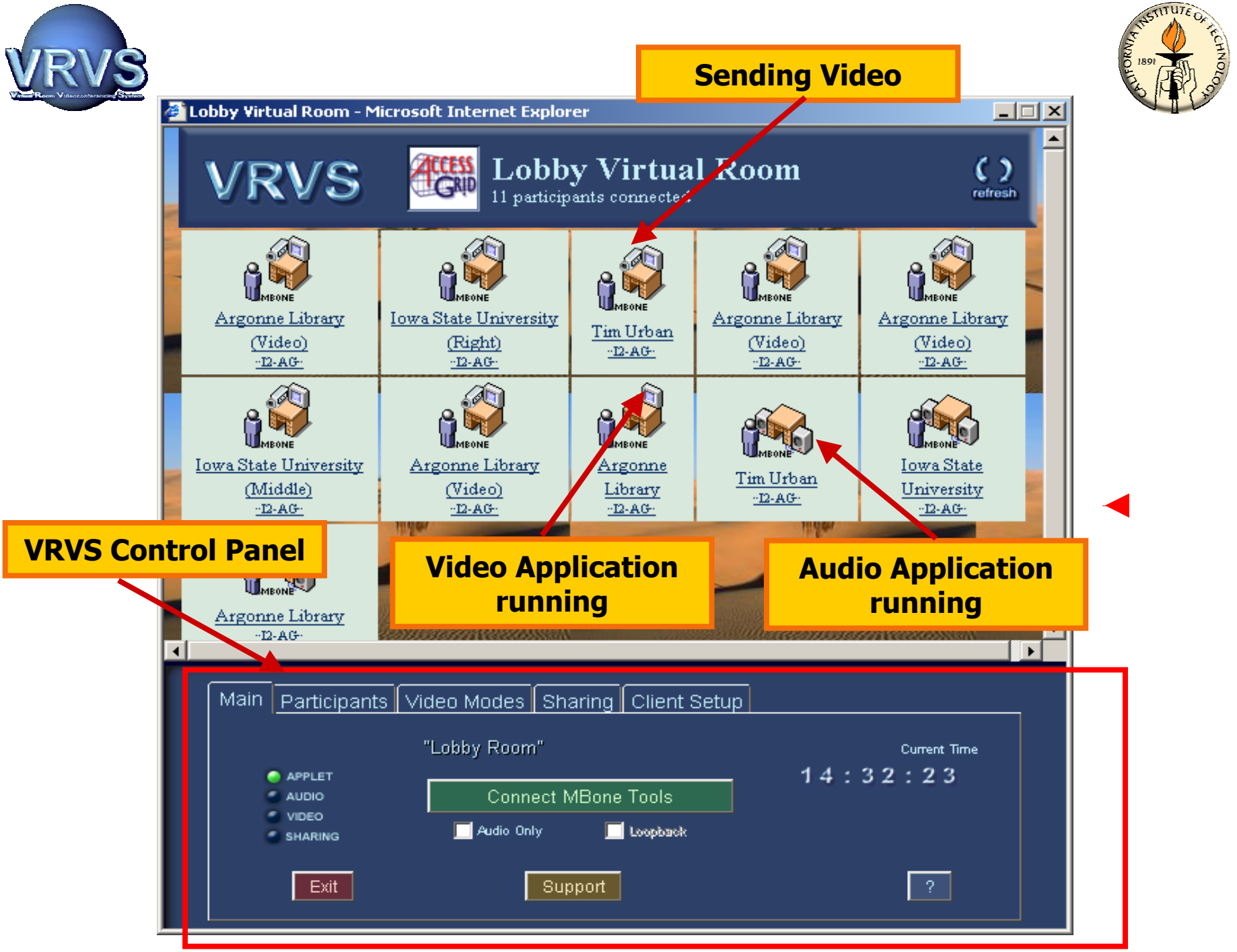
User registration is validated through a key sent by email.
Account is activated only when the key is entered.

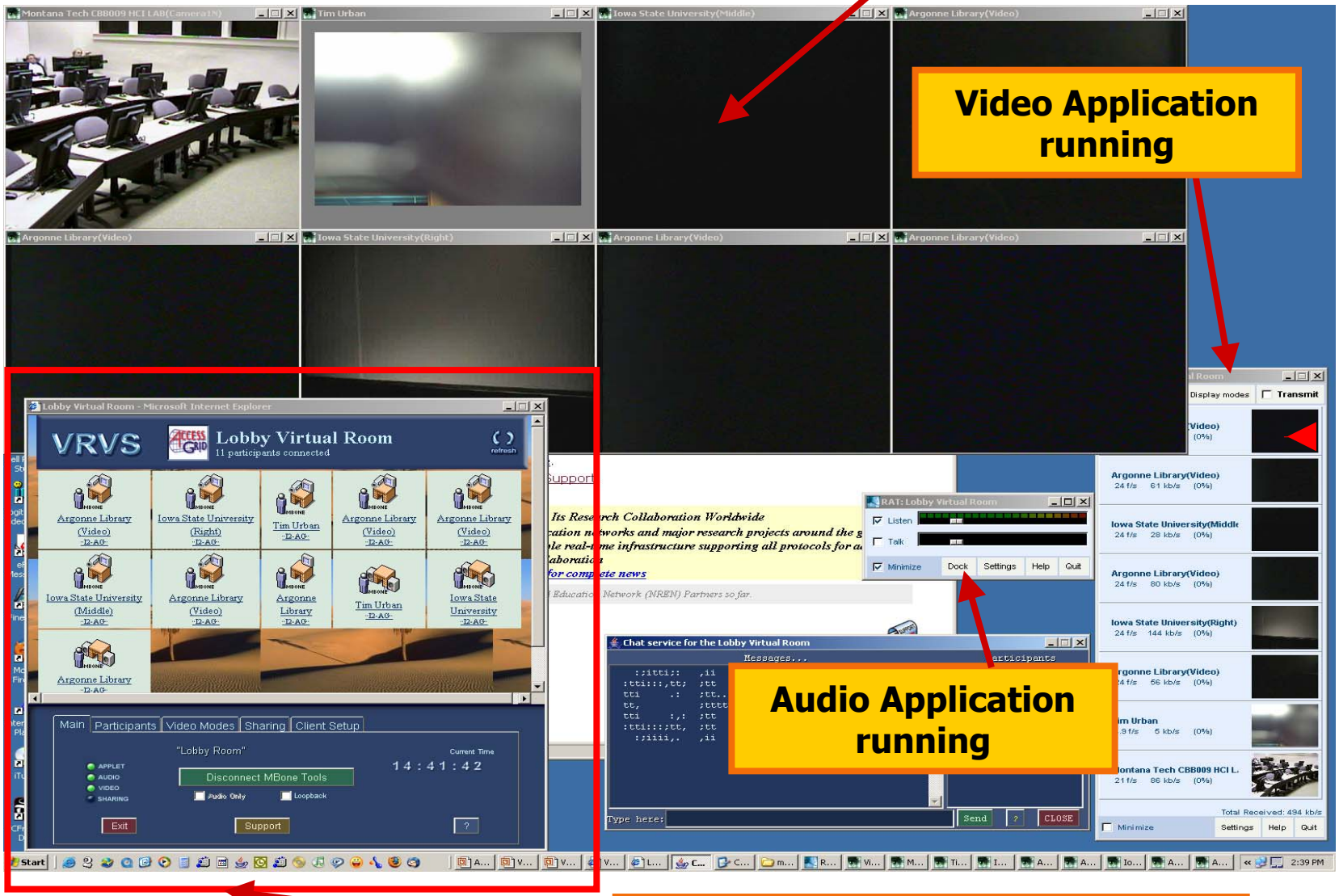


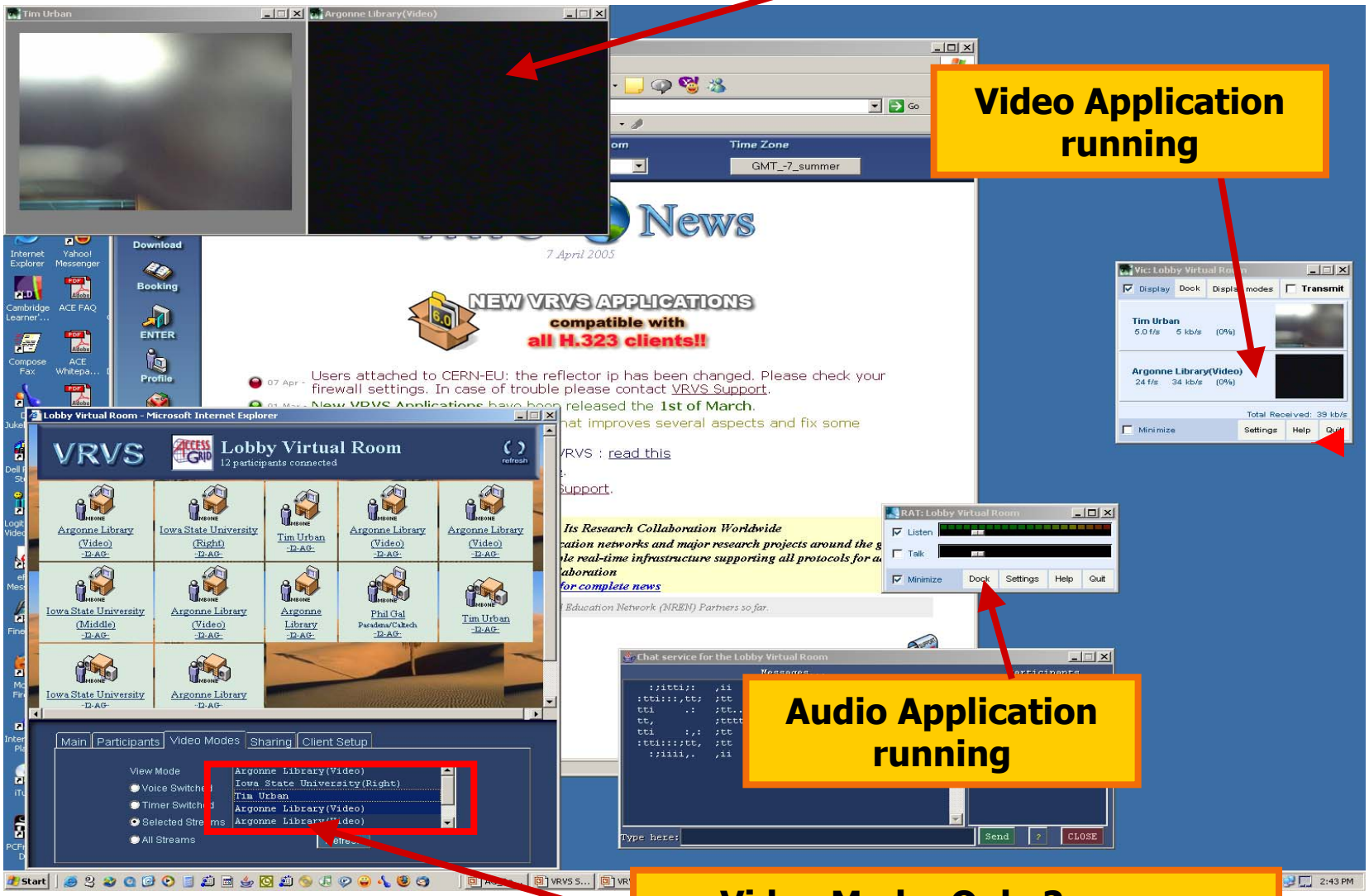
Access is protected by Username/Password to identify each user (Users Oriented Profile)


VRVS version 3.4 (Virtual Rooms Videoconferencing System) - Microsoft Internet Explorer
http://www.vrvs.org/cgi-perl/Auth/login
VRVS vrvs team
Group
ALL
Virtual Room
ALL
Time Zone
GMT_-7_summer
Documentation
Download
Booking
ENTER
Profile
LOGOUT
List of ongoing Meetings
Monday, April 25, 2005
All communities selected. Go back to VRVS TEAM community.
VAccessGrid
Virtual Room
Started
Finish at
Subject
options
Community
Cafe
Ultralight
Forest 10:00 14:58 FPD Task Force
Plane 11:30 15:28 Rochester meeting
Hawaii
DIII-D
X-Point
Holodeck
Pi
Varela
Library
Saint Germain
Capuccino
Kahvila
Cafe Brazil
DANTE-C
GN2-JRA
GN2-JRA
GN2-SA3
CIARA-Cafe
Auyantepui 3 06:00 17:28 Pruebas VC
Universe
Internet2
FUSION
ASTRO
HENP
Chile(REUNA)
Slovakia(SANET)
France(RENATER)
Italy(INFN)
Finland(FUNET)
Brazil(RNP)
GEANT2(DANTE)
CIARA
Venezuela(REACCIUN2)
Internet
Click Enter
Access to the AG Virtual Venues
Current Meeting and Permanent Virtual Room


VRVS version 3.4 (Virtual Rooms Videoconferencing System) - Microsoft Internet Explorer
http://www.vrvs.org/cgi-perl/Auth/login
VRVS
vrvs team
Group
ALL
Virtual Room
ALL
Time Zone
GMT_-7_summer
ACCESSGRID selected.
Leave VAccessGrid
Documentation
Download
Booking
ENTER
Profile
LOGOUT
Virtual Room
Started
Finish at
Subject
options
BigHorn
Bridgeport
Dantooine
FullSail
JackFrost
Kamar
Lobby
LuckyLabrador
Talus
Windmer
Internet2
Axon
CosmicVoyage
Landspout
MonteCarlo
Mosaic
Optiverse
Walkabout
NSF
Collaborati
Edinburgh
Expanding Uses of the AG
Dantooine Venue
FullSail Venue
JackFrost Venue
Kamar Venue
Lobby Venue
LuckyLabrador Venue
Talus Venue
Windmer Venue
Internet2 Venue
Axon Venue
CosmicVoyage Venue
Hydrogen Venue
Landspout Venue
MonteCarlo Venue
Mosaic Venue
Optiverse Venue
Walkabout Venue
NSF Venue
Artistic and Cultural Apps Venue
Collaborative Tools Venue
Edinburgh Venue
Expanding Uses of the AG Venue
Leave the AG Virtual Venues
Current AG Venues defined in the VRVS system


Sending Video
Lobby Virtual Room - Microsoft Internet Explorer
VRVS
Lobby Virtual Room
11 participants connected
refresh
Argonne Library (Video) ··I2-AG··
Iowa State University (Right) ··I2-AG··
Tim Urban ··I2-AG··
Argonne Library (Video) ··I2-AG··
Argonne Library (Video) ··I2-AG··
Iowa State University (Middle) ··I2-AG··
Argonne Library (Video) ··I2-AG··
Argonne Library ··I2-AG··
Tim Urban ··I2-AG··
Iowa State University ··I2-AG··
Argonne Library ··I2-AG··
VRVS Control Panel
Video Application running
Audio Application running
Main
Participants
Video Modes
Sharing
Client Setup
"Lobby Room"
Current Time
14 : 32 : 23
APPLET
AUDIO
VIDEO
SHARING
Connect MBone Tools
Audio Only
Loopback
Exit
Support
?


Video Streams Received
Video Application running
Audio Application running
VRVS Virtual Room / AG Venue
Montana Tech CBB009 HCI LAB(Camera1N)
Tim Urban
Iowa State University(Middle)
Argonne Library(Video)
Argonne Library(Video)
Iowa State University(Right)
Argonne Library(Video)
Argonne Library(Video)
Lobby Virtual Room - Microsoft Internet Explorer
VRVS
Lobby Virtual Room
11 participants connected
Argonne Library (Video)
Iowa State University (Right)
Tim Urban
Argonne Library (Video)
Argonne Library (Video)
Iowa State University (Middle)
Argonne Library (Video)
Argonne Library
Tim Urban
Iowa State University
Argonne Library
Main
Participants
Video Modes
Sharing
Client Setup
"Lobby Room"
Current Time
14:41:42
APPLET
AUDIO
VIDEO
SHARING
Disconnect MBone Tools
Audio Only
Loopback
Exit
Support
RAT: Lobby Virtual Room
Listen
Talk
Minimize
Dock
Settings
Help
Quit
Chat service for the Lobby Virtual Room
Messages...
Participants
Type here:
Send
CLOSE
Display modes
Transmit
Argonne Library(Video)
Iowa State University(Middle)
Argonne Library(Video)
Iowa State University(Right)
Argonne Library(Video)
Tim Urban
Montana Tech CBB009 HCI L.
Total Received: 494 kb/s
Minimize
Settings
Help
Quit
Start
2:39 PM


Video Streams Received
Video Application running
Audio Application running
Video Mode: Only 2 names selected
Tim Urban
Argonne Library(Video)
Lobby Virtual Room - Microsoft Internet Explorer
VRVS
Lobby Virtual Room
12 participants connected
Main
Participants
Video Modes
Sharing
Client Setup
View Mode
Voice Switched
Timer Switched
Selected Streams
All Streams
Iowa State University (Right)
Tim Urban
Argonne Library (Video)
Vic: Lobby Virtual Room
RAT: Lobby Virtual Room
Chat service for the Lobby Virtual Room
Time Zone
GMT_-7_summer
NEW VRVS APPLICATIONS
compatible with
all H.323 clients!!
7 April 2005
Users attached to CERN-EU: the reflector ip has been changed. Please check your firewall settings. In case of trouble please contact VRVS Support.
released the 1st of March.
improves several aspects and fix some
read this
Its Research Collaboration Worldwide
for complete news
Education Network (NREN) Partners so far.


From a Boeing 747 at 12,000 m
over the Ocean

Thank you

www.VRVS.org

Contact@VRVS.org

Support@VRVS.org